

# MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

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## *Topics in Minority Health*

### **Lead Poisoning Associated with Use of Traditional Ethnic Remedies — California, 1991–1992**

Exposure to lead-based paint is the leading cause of high-dose lead exposure among children in the United States. However, previous reports have documented childhood lead poisoning related to the use of traditional ethnic remedies (1–4), and such exposures may not be considered routinely. This article describes a case report of lead poisoning resulting from use of a traditional ethnic remedy and summarizes the identification of this problem as a result of lead poisoning surveillance in California from December 1991 through December 1992.

#### **Case Report**

In March 1992, a 2-year-old boy of Mexican origin was tested for lead poisoning as part of a routine well-child examination in Los Angeles. His blood lead level (BLL) was 83 µg/dL, a level classified by CDC as a medical emergency. The child had no apparent clinical manifestations, and his mother was unaware of obvious sources of lead exposure, including traditional ethnic remedies. However, when the term "greta" (a traditional Mexican remedy employed as a laxative) was used in the interview, the mother acknowledged giving the boy this remedy regularly since he was 8 months of age.

#### **Analysis of Surveillance in California**

From December 1, 1991, through December 31, 1992, the California Department of Health Services received reports of 40 cases of BLLs  $\geq 20$  µg/dL in children who had received traditional ethnic remedies (Table 1). BLLs ranged from 20 µg/dL to 86 µg/dL (median: 33 µg/dL). Ages of the children ranged from 8 months to 5 years (median: 2 years). Of the 36 children for whom sex was known, 27 (75%) were male. Of the 37 children with known surnames, 33 (89%) had Hispanic surnames; two (5%), Asian/Pacific Islander; and two (5%), Asian Indian. More than half (57%) of the children resided in southern California, 24% in the San Francisco Bay area, 12% in the Central Valley, and 7% in rural northern California. By comparison, 72% of all publicly funded

## Lead Poisoning — Continued

TABLE 1. Reported cases of elevated blood lead levels (BLLs) associated with use of traditional ethnic remedies containing lead among children — California, 1991–1992

Remedy (Area where used)/ Use	Description/ Dosage/Administration	No. samples	Lead content	No. cases	Age of index patient		Maximum BLL ( $\mu\text{g}/\text{dL}$ )		Symptoms
					Median	(Range)	Median	(Range)	
Azacron (Mexico)—Used for digestive problems	Bright orange powder. Usually $\frac{1}{2}$ -1 teaspoon, often mixed with oil, milk, or sugar. Sometimes given as a tea. Sometimes a pinch is added to a baby bottle or tortilla dough for preventive purposes.	2	76%–86%	22	2 yrs	(8 mos– 5 yrs)	33	(21–64)	<ul style="list-style-type: none"> <li>• 55% had no symptoms.</li> <li>• 23% had symptoms, including irritability, diarrhea, abdominal pain, or vomiting.</li> <li>• 22% had unknown symptoms.</li> </ul>
Greta (Mexico)—Used for digestive problems	Yellow-orange powder. Same dosage and administration as above.	3	4%–90%	14	2 yrs	(1–5 yrs)	33	(20–83)	<ul style="list-style-type: none"> <li>• 57% had no symptoms.</li> <li>• 43% had symptoms, including loss of appetite, vomiting, abdominal pain, headache, irritability, and muscle soreness.</li> </ul>
Paycoah (Southeast Asia)—Used for rash or fever	Orange-red powder. Given as $\frac{1}{2}$ teaspoon straight, or in a tea.	NA*	NA	2	1 yr, 4 yrs	—	27	(20, 33)	• None
Surma (India)—Used as cosmetic to improve eyesight	Black powder. Applied to inner lower eyelid.	2	23%–26%	1	7 mos	—	39	—	• None
Unknown ayurvedic (Tibet)—Used to improve slow development	Small, gray-brown balls. Two balls given orally 3 times per day.	3	1%–3%	1	5 yrs	—	86	—	• None

\* Not available.

*Lead Poisoning — Continued*

childhood blood lead screening tests were performed in southern California, 11% in the Bay area, 14% in the Central Valley, and 3% in rural northern California.

Of the 40 children, 24 were asymptomatic; of these, five had BLLs  $>50 \mu\text{g/dL}$ , including two in whom the BLL was  $>80 \mu\text{g/dL}$ . For 36 of the 40 cases, the traditional remedies reported were the Hispanic remedies *azarcon* or *greta*. Other remedies were *paylooh* (Southeast Asia, two cases), *surma* (India, one case), and an unnamed ayurvedic substance from Tibet (one case). In many cases, family members initially denied remedy use but reported such use during subsequent case follow-up efforts.

Results of environmental investigations were available for 18 of the 40 children. For seven of these children, investigators identified other environmental lead sources at levels that probably contributed to the exposures. These sources included paint (levels  $>5000$  parts per million [ppm], maximum of 150,000 ppm), bean pots or other large hollowware (leaching  $>1$  ppm lead), and soil (lead levels above 500 ppm).

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**Editorial Note:** In this report, more than half the children had clinically inapparent cases of lead poisoning; nearly all were identified as a result of routine screening of children that had been initiated in California in late November 1991. All of these children had BLLs that substantially exceeded the CDC level of concern ( $10 \mu\text{g/dL}$ ) (5). Investigation of these cases resulted in the recognition that traditional ethnic medicines may be used not only to treat abdominal complaints but also to prevent illness.

Although neurobehavioral development may be impaired in children with BLLs as low as  $10 \mu\text{g/dL}$  (6-8), overt manifestations of lead poisoning generally may not be detected until BLLs exceed  $50 \mu\text{g/dL}$  (9). Frank encephalopathy has been noted in children with levels as low as  $70 \mu\text{g/dL}$  (10). The detection of BLLs  $>50 \mu\text{g/dL}$  in children who were asymptomatic underscores the role of screening as a means for identifying children with dangerous levels of lead exposure.

The reluctance of family members to report the use of traditional ethnic medicines during initial interviews may reflect factors such as uncertainty about the legality of using such medicines, belief in the effectiveness of these remedies, and concerns regarding responsibility for the child's elevated BLL. In addition, because some persons may not consider these substances to be "remedies" or "medicines," health-care providers and public health investigators should ask about the use of these substances by their common names.

The finding of additional sources of lead probably contributing to exposure in seven cases underscores the importance of searching for all possible sources of lead exposure in cases of lead poisoning. Health professionals serving communities with

*Lead Poisoning — Continued*

high-risk populations should be aware of these high-dose sources of lead exposure. Education of parents about the risks of administering lead-containing substances to their children should be a routine part of health-care maintenance in such high-risk groups or settings.

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*Epidemiologic Notes and Reports***Malaria Among U.S. Military Personnel  
Returning from Somalia, 1993**

U.S. military personnel were first deployed to Somalia in late December 1992 as part of Operation Restore Hope. From the time of deployment through April 1993, malaria was diagnosed in 48 personnel who had onset of illness while in Somalia. In addition, through late June, malaria was diagnosed in 83 military personnel following their return from Somalia. This substantial number of cases has reinforced concerns regarding malaria prophylaxis, the estimated risk for infection, and the need for prompt recognition and treatment of malaria in military personnel. This report summarizes the occurrence of malaria in returning personnel and underscores for health-care providers the importance of considering malaria in the diagnostic evaluation of military personnel returning from Somalia and in other persons who have traveled to malarious areas.

Malaria infections were documented in 21 Marine and 62 Army personnel, all of whom had onset of illness after returning to the United States. Of the 62 Army personnel, 55 (89%) were stationed at Fort Drum, New York; approximately 60% of all Army troops sent to Somalia originally were stationed at Fort Drum. Detailed investigations have been completed for 32 (58%) of the Army personnel stationed at Fort Drum and all 21 Marines. Of these 53 persons, 43 (81%) had been stationed south of Mogadishu.

*Malaria — Continued*

*Plasmodium vivax* was detected in 41 (77%) of the cases, *P. falciparum* in nine (17%), a mixed vivax and falciparum infection in two (4%), and *P. ovale* infection in one.

Mefloquine was used for malaria prophylaxis by 38 persons and doxycycline by 15 persons. Because of the reportedly low frequency of vivax and ovale malaria in Somalia, terminal prophylaxis with primaquine to prevent relapses of vivax or ovale malaria following departure from Somalia had not been recommended for Army personnel. Although terminal prophylaxis had been recommended for Marine and Navy personnel, only eight of the 15 Marines with vivax or ovale malaria had completed terminal prophylaxis. Use of prophylaxis, including terminal prophylaxis, was not supervised after arrival in the United States, and compliance was reportedly low.

Manifestations of illness included a history of fever and chills (100%), headache (97%), gastrointestinal symptoms (72%), myalgia and/or arthralgia (69%), lumbosacral pain (63%), and upper respiratory symptoms (59%). Patients with falciparum malaria had onset of symptoms an average of 34 days (range: 10–86 days) after return to the United States and 18 days (range: 0–58 days) after discontinuation of prophylaxis; patients with vivax malaria had onset at intervals of 60 days (range: 12–119 days) after return to the United States and 42 days (range: 0–102 days) after discontinuation of prophylaxis. The patients were ill an average of 4 days (range: 0–23 days) before seeking medical attention. In 13 (25%) patients, the diagnosis of malaria was delayed for 3 or more days after initial medical contact.

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**Editorial Note:** Most U.S. military personnel who developed malaria in Somalia or after their return to the United States had been stationed in the southern riverine area of Somalia, where malaria transmission is intense and is characterized by seasonal exacerbations from May through August and during November and December. Transmission in the central and northern parts of the country is relatively low. *P. falciparum* is the predominant species of malaria infection among the population and accounts for 94% of malaria cases in Somalia. *P. vivax* accounts for 4% of cases and *P. malariae* for 2%; malaria caused by *P. ovale* occurs rarely (1).

The incubation period for vivax malaria is similar to that for falciparum malaria. Because patients infected with *P. vivax* became ill several weeks later than those infected with *P. falciparum*, cases of vivax malaria in military personnel following their return to the United States probably represented relapses of parasitemia from hepatic stages (hypnozoites). Because of the unexpectedly high rate of these relapses, on May 21, the Office of the Surgeon General of the Army mandated primaquine as part of the terminal prophylactic regimen for troops returning from Somalia.

The probability of mosquito-borne transmission of malaria in the United States as a consequence of the return of these military personnel is considered low. From 1966 through 1972, four episodes of transmission in the United States—resulting in nine cases of malaria—were identified in association with the 13,843 military personnel subsequently diagnosed with vivax malaria in the United States at the time of their return from Vietnam. Prompt recognition and treatment of malaria is the most important approach for preventing introduction of malaria into the United States.

*Malaria — Continued*

Malaria must be considered in the differential diagnosis for military personnel and all other persons with fever or a history of fever who have traveled to a malarious area. The diagnosis of malaria initially may not be considered because a complete foreign travel history has not been elicited or because the initial symptoms do not include the classic pattern of repeated episodes of fever and chills and may have a dominant gastrointestinal or respiratory component. For patients who have continued taking prophylaxis or who have recently discontinued prophylaxis, the clinical presentation often is milder than in patients who have not taken any prophylaxis (2,3). Malaria infection can be excluded only after microscopic examination of serial thick and thin blood smears over a 72-hour period. Many of the cases of malaria described in this report were characterized by a low density of parasitemia that was diagnosed only on thick smears.

Physicians should report confirmed cases of malaria to their local health departments and are requested to report confirmed cases to the Office of the Surgeon General of the Army (Col. J.P. Tomlinson, telephone [703] 756-0135) for patients in the U.S. Army, the San Diego Naval Medical Center (LCDR J. Newton, telephone [619] 532-7475) for patients in the U.S. Marines or U.S. Navy, or the Office of the Surgeon General of the Air Force (Col. J. Wright, telephone [202] 767-1835) for patients in the U.S. Air Force.

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### **Foodborne Hepatitis A — Missouri, Wisconsin, and Alaska, 1990-1992**

Person-to-person spread is the predominant mode of transmission of hepatitis A virus (HAV) infection. However, based on findings for national surveillance for viral hepatitis, since 1983, 3%-8% of reported hepatitis A cases have been associated with suspected or confirmed foodborne or waterborne outbreaks (1). This report summarizes three recent foodborne outbreaks of hepatitis A and addresses the prevention of this problem.

**Missouri**

On November 26, 1990, hepatitis A was diagnosed in an employee of a restaurant in Cass County, Missouri. The employee's duties involved washing pots and pans in the restaurant. From December 7, 1990, through January 9, 1991, hepatitis A was diagnosed in 110 persons, including four waitresses, who had eaten at the restaurant; two persons died as a result of fulminant hepatitis.

To identify risk factors for hepatitis A in restaurant patrons, CDC, in collaboration with the Missouri Department of Health (MDH), conducted a case-control study. A case was defined as an anti-HAV immunoglobulin M (IgM)-positive diagnosis in a per-



*Hepatitis A — Continued*

son who had eaten at the restaurant three or more times during the 6-week period before onset of illness. Eating companions of case-patients were selected as controls. Twenty-three case-patients and 31 controls were included. Case-patients were asked about risk factors for hepatitis A (including contact [i.e., sexual, household, or other] with a person with hepatitis A, employment as a food handler, injecting-drug use, recent international travel, association with child care centers, consumption of raw shellfish, and eating at other restaurants in town) during the 2–6 weeks before onset of illness. Foods at the restaurant that were either uncooked or were handled after cooking were included in a food-history questionnaire.

Case-patients were more likely than controls to have consumed a salad (odds ratio [OR]=8.6; 95% confidence interval [CI]=2.0–40.6). In addition, case-patients (100%) were more likely than controls (48%) to have eaten lettuce, either in a salad or as a garnish for a sandwich (OR=undefined; lower 95% confidence limit=6.2). On follow-up interview, the index case-patient reported that he occasionally helped unpack fresh produce and prepare lettuce for salads. From December 1990 through January 1991, immune globulin (IG) was administered to 22 restaurant employees and approximately 3000 potentially exposed restaurant patrons. No cases of hepatitis A were reported among restaurant patrons after January 9, 1991.

**Wisconsin**

On April 10, 1991, a food handler employed at sandwich shops in downtown Milwaukee and at a university campus sought medical attention following onset of fatigue, loss of appetite, diarrhea, and fever. He was jaundiced and excluded from work. Acute hepatitis A was diagnosed serologically, and the case was reported to the Milwaukee Health Department (MHD).

Inspection by the MHD of the downtown shop found no health-code violations, and medical histories and serologies obtained from other employees were negative for evidence of hepatitis A. The case-patient reported his hygiene to be good, although this report could not be confirmed by his supervisor. His coworkers received prophylaxis with IG. Because of the report of good hygiene and a good report following inspection of the facility, the risk to patrons was considered minimal. Because 2 weeks had elapsed since the employee had last worked in the campus sandwich shop, this shop was not inspected, and IG was not administered to other employees.

On April 27, eight students presented to the student health service of a university in Milwaukee with symptoms of hepatitis. On April 28, 60 additional persons with hepatitis A were reported to local public health agencies. Review of food histories from these patients suggested both the downtown and university sandwich shops as probable sources. Because no new cases were identified among food handlers, and because a 2-week period had passed between the food handler's last working at the campus sandwich shop and recognition of the outbreak, IG was not offered to restaurant patrons.

The two sandwich shops were owned by the same person and received some produce from the same commercial suppliers; no other common links were identified. Although the infected food handler reported his personal hygiene to be good, one coworker and several customers reported his hygiene was poor. To prevent secondary transmission of hepatitis from shop customers who might be food handlers, more

*Hepatitis A — Continued*

than 350 centrally located restaurants were visited by MHD inspectors and advised on proper precautions.

Overall, outbreak-related hepatitis A was diagnosed in 230 persons: 50 reported eating at the university sandwich shop and 180 reported eating at the downtown sandwich shop during April 17–May 29, 1992. The 2-week peak period for onset of jaundice (in 85% of cases) occurred approximately 1 month after the 2-week period in which the infected food handler staffed both shops. Because 228 of the 230 case-patients ate exclusively at one of the two shops and because no prepared food was shared between them, food was considered to have been contaminated independently at each site. Through July 15, one second generation case (in a household contact of a sandwich shop patron) was documented.

**Alaska**

On May 4, 1992, a food handler who routinely prepared uncooked sandwiches at a fast-food restaurant in Juneau, Alaska, had onset of nausea, vomiting, and diarrhea. Although his employer instructed him not to handle food, he was allowed to continue work. On May 8, he sought medical attention and was jaundiced; IgM anti-HAV was negative. On May 18, repeat testing was positive for IgM anti-HAV. The case-patient reported his hygiene to be good, and this was confirmed by his supervisor and co-workers.

From June 1 through June 11, 11 cases of acute hepatitis A were diagnosed in residents of or visitors to Juneau. To identify risk factors for infection, the Alaska Department of Health and Social Services conducted a case-control study. A case was defined as an anti-HAV IgM-positive diagnosis in a Juneau resident or visitor with onset of illness during June 1–11. Twenty-four controls were selected from among coworkers of case-patients. Case-patients were asked about risk factors for hepatitis A, including contact (i.e., sexual, household, or other) with a person with hepatitis A, employment as a food handler, injecting-drug use, recent international travel, association with child care centers, consumption of raw shellfish, and eating at restaurants in town. All case-patients, compared with six (25%) controls, ate at least once during May 4–8 at the fast-food restaurant where the index case-patient worked (OR=undefined; lower 95% confidence limit=5.1). Because 2 weeks had elapsed between the index case-patient's onset of illness and serologic confirmation of HAV infection, IG was not administered to coworkers or restaurant patrons.

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**Editorial Note:** Foodborne hepatitis A outbreaks are most often caused by contamination of food during preparation by an infected food handler. An important method of prevention is attention to personal hygiene, including frequent handwashing during all phases of food preparation. In addition, when hepatitis A is diagnosed in a food handler, IG should be administered to all other food handlers at the establishment. Administration of IG to patrons should be considered if 1) the infected person is directly involved in handling, without gloves, foods that will not be cooked before they are eaten; 2) the hygienic practices of the food handler are deficient or the food



*Hepatitis A — Continued*

handler has had diarrhea; and 3) patrons can be identified and treated within 2 weeks of exposure (2,3).

The outbreaks in this report highlight several important aspects concerning recognition and reporting of persons with hepatitis A and decisions on the use of IG. Restaurant employees other than food handlers may handle food and, if infected with hepatitis A virus, pose a risk for foodborne transmission. Therefore, regardless of their job description and duties, restaurant employees with hepatitis A should be asked about any handling of uncooked food during the period that they may have been infectious.

In the Milwaukee outbreak, despite the self-reported good hygienic practices of the food handler, criteria were sufficient to recommend IG to restaurant patrons. Without the presence of diarrhea in a food handler with hepatitis A, a self-report of good hygienic practice may be inadequate to assess the level of risk to patrons. Evaluation of the hygienic practices of an infected food handler should include interviews with supervisors and coworkers.

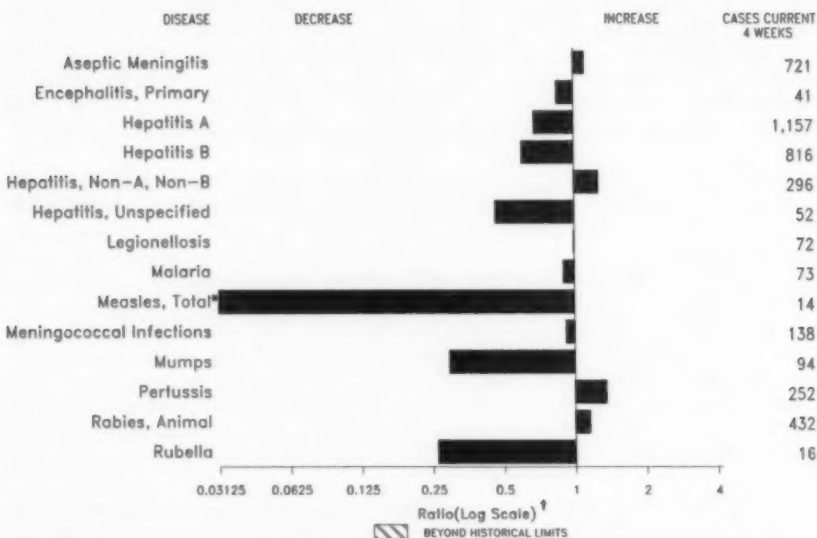
In the outbreak in Alaska, all criteria were met for the consideration of administration of IG to restaurant customers. However, because the food handler was initially IgM anti-HAV negative at the time of jaundice, diagnosis was delayed beyond the 2-week interval for recommended use of IG. Even though specific antibody is almost always present at the time of the onset of symptoms (4-8), in food handlers with acute onset of jaundice and no identified cause, retesting for IgM anti-HAV is recommended.

Factors that are essential in the prevention and control of foodborne hepatitis A include accurate assessment of the hygienic status of food handlers; identification of food handlers and other restaurant employees with hepatitis A; and rapid diagnosis and reporting of cases in food handlers. Because IG must be administered within 2 weeks of exposure to HAV to be effective, health-care providers should promptly evaluate food handlers with symptoms of hepatitis and report food handlers with hepatitis A to appropriate public health agencies.

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**FIGURE 1. Notifiable disease reports, comparison of 4-week totals ending July 10, 1993, with historical data — United States**



\*The large apparent decrease in reported cases of measles (total) reflects dramatic fluctuations in the historical baseline. (Ratio (log scale) for week twenty-seven is 0.01638).

†Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

**TABLE 1. Summary — cases of specified notifiable diseases, United States, cumulative, week ending July 10, 1993 (27th Week)**

	Cum. 1993		Cum. 1993
AIDS*	59,979	Measles: imported	18
Anthrax	-	Indigenous	159
Botulism: Foodborne	8	Plague	3
Infant	14	Poliomyelitis, Paralytic <sup>†</sup>	-
Other	2	Psittacosis	28
Brucellosis	42	Rabies, human	-
Cholera	14	Syphilis, primary & secondary	13,633
Congenital rubella syndrome	5	Syphilis, congenital, age < 1 year	677
Diphtheria	-	Tetanus	15
Encephalitis, post-infectious	86	Toxic shock syndrome	124
Gonorrhea	195,792	Trichinosis	8
Haemophilus influenzae (invasive disease) <sup>†</sup>	670	Tuberculosis	10,549
Hansen Disease	91	Typhoid fever	59
Leptospirosis	18	Typhus fever, tickborne (RMSF)	159
Lyme Disease	2,370		111

\*Updated monthly; last update July 3, 1993.

<sup>†</sup>Of 612 cases of known age, 202 (33%) were reported among children less than 5 years of age.

No cases of suspected poliomyelitis have been reported in 1993; 10 cases of suspected poliomyelitis were reported in 1992; 6 of the 9 suspected cases with onset in 1991 were confirmed; the confirmed cases were vaccine associated.

TABLE II. Cases of selected notifiable diseases, United States, weeks ending July 10, 1993, and July 4, 1992 (27th Week)

Reporting Area	AIDS*	Aseptic Meningi- tis	Encephalitis		Gonorrhea		Hepatitis (Viral), by type				Legionel- losis	Lyme Disease
			Primary	Post-in- fectious			A	B	NA,NB	Unspeci- fied		
	Cum. 1993	Cum. 1993	Cum. 1993	Cum. 1993	Cum. 1993	Cum. 1992	Cum. 1993	Cum. 1993	Cum. 1993	Cum. 1993	Cum. 1993	Cum. 1993
UNITED STATES	59,979	3,739	274	88	195,792	252,969	10,701	6,039	2,367	320	569	2,370
NEW ENGLAND	2,815	58	4	4	3,920	5,249	154	178	238	5	14	435
Maine	60	12	1	-	42	48	8	9	-	-	4	4
N.H.	66	11	-	2	31	64	13	45	217	1	1	28
Vt.	14	9	2	-	14	14	3	5	2	-	-	1
N. Mass.	1,491	11	1	2	1,309	1,941	47	66	15	4	5	20
R.I.	192	15	-	-	192	393	49	15	4	-	-	69
Conn.	992	-	-	-	2,332	2,789	34	36	-	-	-	315
MID. ATLANTIC	13,675	328	13	7	21,502	26,804	610	761	168	4	119	1,502
Upstate N.Y.	2,162	134	6	4	4,228	5,675	193	211	98	1	37	994
N.Y. City	7,455	104	1	-	5,067	8,844	177	121	1	-	3	3
N.J.	2,561	-	-	-	3,717	3,889	163	216	49	-	16	232
Pa.	1,497	88	6	3	8,490	8,396	77	213	20	3	63	273
E.N. CENTRAL	4,967	471	78	15	38,584	46,929	1,032	621	368	8	157	20
Ohio	809	148	26	3	10,267	14,511	164	121	29	-	76	15
Ind.	585	71	6	7	4,031	4,298	434	129	7	1	34	1
Ill.	1,778	92	16	-	12,862	14,886	310	129	21	2	7	2
Mich.	1,290	152	26	5	8,620	11,073	118	237	290	5	32	2
Wis.	507	10	4	-	2,804	2,161	6	5	21	-	8	-
W.N. CENTRAL	2,274	221	12	-	10,340	13,305	1,348	358	105	6	37	41
Minn.	480	48	6	-	1,303	1,539	224	34	3	4	1	4
Iowa	131	47	1	-	602	923	18	13	5	1	5	5
Mo.	1,292	53	-	-	5,919	7,261	866	264	78	1	11	7
N. Dak.	-	5	2	-	25	49	50	-	-	-	1	2
S. Dak.	21	7	3	-	154	89	10	-	-	-	-	-
Nebr.	120	4	-	-	478	759	121	8	9	-	16	2
Kans.	230	57	-	-	1,861	2,685	59	39	10	-	3	21
S. ATLANTIC	12,950	906	47	38	52,842	78,163	668	1,134	297	42	97	288
Del.	235	21	3	-	708	915	7	81	66	-	8	141
Md.	1,425	77	11	-	8,306	7,491	92	147	9	5	23	46
D.C.	774	19	-	-	2,761	3,066	3	14	-	-	12	2
Va.	899	87	16	3	5,882	9,179	77	78	20	16	3	30
W. Va.	46	8	7	-	293	468	4	20	16	-	1	2
N.C.	742	67	9	-	12,840	12,689	32	163	32	-	15	43
S.C.	854	7	-	-	5,246	5,728	7	20	-	1	10	3
Ga.	1,661	62	1	-	4,680	24,589	63	72	29	-	13	-
Fla.	6,314	558	-	35	11,946	13,458	383	539	125	20	12	21
E.S. CENTRAL	1,588	203	11	4	22,239	24,641	125	634	446	1	22	10
Ky.	185	82	5	4	2,335	2,545	64	48	6	-	8	2
Tenn.	640	29	5	-	6,805	7,902	26	523	432	-	11	6
Ala.	490	60	1	-	7,872	8,253	25	60	3	1	1	2
Miss.	273	32	-	-	5,227	5,941	10	3	5	-	2	-
W.S. CENTRAL	6,332	376	22	-	22,937	27,240	992	799	123	92	15	13
Ark.	248	23	-	-	4,412	4,240	27	32	2	1	-	1
La.	806	35	1	-	6,192	7,317	44	109	50	2	2	-
Okl.	542	1	4	-	1,895	2,658	58	125	33	6	9	5
Tex.	4,736	317	17	-	10,438	13,025	863	533	38	83	4	7
MOUNTAIN	2,789	225	14	4	5,607	6,472	2,197	310	164	55	49	3
Mont.	17	-	-	1	22	56	55	4	-	-	5	-
Idaho	49	7	-	-	96	61	96	25	-	1	1	-
Wyo.	30	4	-	-	41	29	11	16	53	-	5	2
Colo.	925	47	4	-	1,710	2,344	553	41	27	35	5	-
N. Mex.	220	47	3	2	482	468	185	125	52	2	3	-
Ariz.	956	87	5	-	2,124	2,270	767	51	9	7	9	-
Utah	195	6	1	-	178	144	478	23	19	10	7	1
Nev.	397	27	1	1	956	1,100	52	25	4	-	14	-
PACIFIC	12,589	953	73	16	18,021	24,166	3,575	1,246	458	107	59	58
Wash.	882	-	-	-	1,984	2,164	394	106	96	7	9	1
Oreg.	522	-	-	-	947	812	54	21	9	-	-	1
Calif.	11,030	891	69	16	14,580	20,560	2,614	1,097	344	97	45	55
Alaska	20	8	3	-	258	376	464	6	7	-	-	-
Hawaii	135	54	1	-	252	254	49	16	2	3	5	1
Guam	-	2	-	-	39	45	2	2	-	1	-	-
P.R.	1,786	31	-	-	229	91	43	199	23	2	-	-
V.I.	33	-	-	-	61	55	-	2	-	-	-	-
Amer. Samoa	-	-	-	-	22	21	10	-	-	-	-	-
C.N.M.I.	-	2	-	-	47	38	-	-	-	1	-	-

N: Not notifiable

U: Unavailable

C.N.M.I.: Commonwealth of Northern Mariana Islands

\*Updated monthly; last update July 3, 1993.

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending July 10, 1993, and July 4, 1992 (27th Week)

Reporting Area	Malaria Cum. 1993	Measles (Rubeola)					Menin- gococcal Infections Cum. 1993	Mumps		Pertussis			Rubella		
		Indigenous		Imported*		Total									
		1993	Cum. 1993	1993	Cum. 1993	Cum. 1992		1993	Cum. 1993	1993	Cum. 1993	Cum. 1992	1993	Cum. 1993	Cum. 1992
UNITED STATES	484	7	159	-	18	1,990	1,362	16	945	66	1,400	889	7	120	109
NEW ENGLAND	24	-	42	-	3	51	58	-	5	11	309	77	-	1	6
Maine	1	-	-	-	-	-	5	-	-	-	8	3	-	1	1
N.H.	5	-	-	-	-	13	12	-	-	3	198	22	-	-	-
Vt.	1	-	30	-	1	-	4	-	-	-	42	2	-	-	-
Mass.	2	-	3	-	1	14	18	-	-	7	26	36	-	-	-
R.I.	2	-	-	-	1	20	1	-	2	1	3	-	-	-	4
Conn.	13	-	9	-	-	4	18	-	3	-	32	14	-	-	1
MID. ATLANTIC	90	-	6	-	2	187	170	2	76	9	198	53	5	35	10
Upstate N.Y.	32	-	-	-	1	108	78	-	26	5	85	25	5	10	7
N.Y. City	24	-	2	-	-	43	19	-	-	-	7	9	-	15	-
N.J.	26	-	4	-	1	36	24	-	8	-	21	19	-	6	3
Pa.	8	-	-	-	-	-	49	2	42	4	85	-	-	4	-
E.N. CENTRAL	29	-	1	-	-	36	193	-	136	3	191	87	-	1	7
Ohio	7	-	-	-	-	5	61	-	57	1	120	26	-	1	-
Ind.	3	-	-	-	-	20	33	-	3	1	29	12	-	-	-
Ill.	14	-	1	-	-	8	57	-	29	-	20	14	-	-	7
Mich.	5	-	-	-	-	2	41	-	47	1	19	4	-	-	-
Wis.	-	-	-	-	-	1	1	-	-	-	3	31	-	-	-
W.N. CENTRAL	16	-	1	-	2	8	86	-	27	5	99	68	-	1	5
Minn.	3	-	-	-	-	7	3	-	-	3	48	23	-	-	-
Iowa	1	-	-	-	-	1	16	-	7	-	1	3	-	-	-
Mo.	4	-	1	-	-	-	35	-	15	-	30	28	-	1	1
N. Dak.	3	-	-	-	-	-	3	-	4	-	3	7	-	-	-
S. Dak.	2	-	-	-	-	-	3	-	-	1	2	4	-	-	-
Nebr.	3	-	-	-	-	-	7	-	1	1	6	2	-	-	-
Kans.	1	-	-	-	2	-	21	-	-	-	11	1	-	-	4
S. ATLANTIC	145	-	20	-	3	113	274	2	302	11	152	84	-	8	9
Del.	1	-	3	-	-	1	11	-	4	3	5	-	-	2	-
Md.	14	-	-	-	2	16	26	1	53	4	50	13	-	2	4
D.C.	5	U	-	U	-	-	4	U	-	U	2	-	U	-	-
Va.	10	-	-	-	1	11	25	-	16	-	17	4	-	-	-
W. Va.	2	-	-	-	-	-	11	-	6	-	8	2	-	-	-
N.C.	79	-	-	-	-	24	50	-	176	-	24	14	-	-	-
S.C.	1	-	-	-	-	29	23	-	14	-	5	7	-	-	2
Ga.	5	-	-	-	-	-	58	-	9	-	5	8	-	-	-
Fla.	26	-	17	-	-	32	66	1	24	4	38	18	-	4	3
E.S. CENTRAL	12	-	1	-	-	450	85	1	34	3	64	15	-	-	1
Ky.	-	-	-	-	-	433	17	-	-	-	3	-	-	-	-
Tenn.	7	-	-	-	-	-	18	1	11	-	33	5	-	-	1
Ala.	3	-	1	-	-	-	31	-	18	3	26	9	-	-	-
Miss.	2	-	-	-	-	17	19	-	5	-	2	1	-	-	-
W.S. CENTRAL	11	-	1	-	-	1,038	125	6	138	3	36	129	-	12	6
Ark.	2	-	-	-	-	-	14	-	4	-	3	6	-	-	-
La.	-	-	1	-	-	-	25	-	11	1	6	-	-	1	-
Okla.	4	-	-	-	-	11	12	-	7	2	14	20	-	1	-
Tex.	5	-	-	-	-	1,027	74	6	116	-	13	103	-	10	8
MOUNTAIN	17	-	2	-	-	13	121	-	35	6	121	145	-	4	5
Mont.	2	-	-	-	-	-	11	-	-	-	-	1	-	-	-
Idaho	1	-	-	-	-	-	7	-	5	2	21	17	-	1	1
Wyo.	-	-	-	-	-	1	2	-	2	-	1	-	-	-	-
Colo.	10	-	2	-	-	12	20	-	8	-	50	23	-	-	-
N. Mex.	4	-	-	-	-	-	3	N	N	-	21	32	-	-	-
Ariz.	-	-	-	-	-	-	61	-	6	1	12	56	-	1	2
Utah	-	-	-	-	-	-	10	-	3	3	16	15	-	1	1
Nev.	-	-	-	-	-	-	7	-	11	-	-	1	-	1	1
PACIFIC	150	7	85	-	8	94	246	5	192	15	230	251	2	58	60
Wash.	14	-	-	-	-	10	39	-	8	-	22	61	-	-	6
Oreg.	3	-	-	-	-	3	21	N	N	-	3	14	-	1	1
Calif.	129	7	74	-	3	47	168	5	164	15	195	163	1	34	36
Alaska	-	-	-	-	-	9	12	-	5	-	3	1	-	1	-
Hawaii	4	-	11	-	5	25	8	-	15	-	7	12	1	22	17
Guam	1	U	2	U	-	10	1	U	6	U	-	-	U	-	1
P.R.	-	37	159	-	-	244	6	-	1	-	1	9	-	-	-
V.I.	-	U	-	U	-	-	-	U	3	U	-	-	U	-	-
Amer. Samoa	-	-	1	-	-	-	-	-	-	-	2	6	-	-	-
C.N.M.I.	-	-	-	-	1	-	-	-	11	-	-	1	-	-	-

\*For measles only, imported cases include both out-of-state and international importations.

N: Not notifiable

U: Unavailable

† International

‡ Out-of-state

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending July 10, 1993, and July 4, 1992 (27th Week)

Reporting Area	Syphilis (Primary & Secondary)		Toxic- Shock Syndrome	Tuberculosis		Tula- remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1993	Cum. 1992	Cum. 1993	Cum. 1993	Cum. 1992	Cum. 1993	Cum. 1993	Cum. 1993	Cum. 1993
UNITED STATES	13,633	17,839	124	10,549	11,016	58	189	111	3,949
NEW ENGLAND	221	327	7	223	177	-	8	1	489
Maine	3	-	2	7	14	-	-	-	-
N.H.	21	26	2	4	-	-	-	-	38
Vt.	1	1	-	3	3	-	-	-	19
Mass.	86	157	2	125	74	-	6	1	85
R.I.	7	18	1	32	13	-	-	-	-
Conn.	103	125	-	52	73	-	2	-	348
MID. ATLANTIC	1,269	2,508	25	2,318	2,637	1	46	11	1,556
Upstate N.Y.	108	206	14	206	325	1	11	1	1,192
N.Y. City	628	1,372	1	1,399	1,547	-	26	-	-
N.J.	180	348	-	369	448	-	6	7	219
Pa.	353	582	10	344	317	-	3	3	145
E.N. CENTRAL	2,163	2,579	36	1,107	1,105	3	15	5	36
Ohio	649	404	15	162	167	1	5	4	4
Ind.	179	123	1	120	89	1	1	-	-
Ill.	796	1,112	5	551	551	-	5	1	4
Mich.	333	537	15	225	252	1	4	-	2
Wis.	206	403	-	48	46	-	-	-	26
W.N. CENTRAL	876	695	9	238	258	17	2	9	196
Minn.	46	44	2	30	75	-	-	1	23
Iowa	32	27	5	26	22	-	-	1	35
Mo.	702	523	-	123	104	6	2	5	5
N. Dak.	-	1	-	4	3	-	-	-	41
S. Dak.	1	-	-	10	14	8	-	2	25
Nebr.	10	19	-	12	13	1	-	-	6
Kans.	85	81	2	31	27	2	-	-	61
S. ATLANTIC	3,622	4,983	13	1,807	2,041	1	20	45	1,081
Del.	71	117	1	21	25	-	1	1	86
Md.	202	369	-	202	151	-	3	4	317
D.C.	201	236	-	85	67	-	-	-	7
Va.	329	404	3	237	145	-	1	4	196
W. Va.	5	9	-	44	37	-	-	-	48
N.C.	1,009	1,242	3	260	265	-	-	20	43
S.C.	552	662	-	216	217	-	-	5	90
Ga.	807	1,022	-	394	458	-	1	6	254
Fla.	646	922	6	348	676	1	14	5	42
E.S. CENTRAL	1,946	2,308	4	689	819	3	2	11	48
Ky.	166	75	2	191	199	-	-	4	8
Tenn.	549	646	1	144	235	2	-	5	-
Ala.	441	899	1	244	224	1	2	-	40
Miss.	790	688	-	110	161	-	-	2	-
W.S. CENTRAL	2,857	3,099	2	1,115	1,097	26	2	25	302
Ark.	476	477	-	86	89	14	-	-	18
La.	1,266	1,325	-	-	87	-	1	1	2
Okla.	213	133	2	155	70	9	-	23	47
Tex.	902	1,164	-	874	851	3	1	1	235
MOUNTAIN	119	205	8	251	276	3	5	4	59
Mont.	1	3	-	5	-	-	-	-	11
Idaho	-	1	1	6	12	-	-	-	2
Wyo.	4	1	-	2	-	2	-	4	11
Colo.	35	28	2	8	30	-	4	-	1
N. Mex.	19	24	-	35	39	-	-	-	4
Ariz.	52	102	1	126	122	-	1	-	26
Utah	3	5	3	11	42	1	-	-	-
Nev.	5	41	1	58	31	-	-	-	2
PACIFIC	560	1,135	20	2,803	2,606	4	59	-	182
Wash.	28	51	3	132	157	1	4	-	-
Oreg.	48	25	-	57	60	2	-	-	-
Calif.	478	1,052	17	2,449	2,227	1	53	-	165
Alaska	4	3	-	27	37	-	-	-	17
Hawaii	2	4	-	138	125	-	2	-	-
Guam	1	2	-	28	34	-	-	-	-
P.R.	283	169	-	93	120	-	-	-	25
V.I.	27	32	-	2	3	-	-	-	-
Amer. Samoa	-	-	-	2	-	-	-	-	-
C.N.M.I.	3	4	-	19	28	-	-	-	-

U: Unavailable

TABLE III. Deaths in 121 U.S. cities,\* week ending  
July 10, 1993 (27th Week)

Reporting Area	All Causes, By Age (Years)						P&I <sup>†</sup> Total	Reporting Area	All Causes, By Age (Years)						P&I <sup>†</sup> Total
	All Ages	≥65	45-64	25-44	1-24	<1			All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	563	380	100	54	17	12	43	S. ATLANTIC	1,072	646	238	129	42	16	43
Boston, Mass.	167	96	33	23	8	7	19	Atlanta, Ga.	119	67	26	23	1	1	7
Bridgeport, Conn.	34	25	6	2	-	-	-	Baltimore, Md.	71	39	23	8	1	2	4
Cambridge, Mass.	26	20	5	1	-	-	2	Charlotte, N.C.	107	71	20	9	6	1	5
Fall River, Mass.	26	21	5	-	-	-	-	Jacksonville, Fla.	93	53	25	9	6	-	2
Hartford, Conn.	66	44	9	9	3	1	1	Miami, Fla.	58	34	20	4	-	-	2
Lowell, Mass.	16	12	3	1	-	-	2	Norfolk, Va.	54	38	10	6	-	-	3
Lynn, Mass.	13	9	2	1	1	-	1	Richmond, Va.	41	31	6	4	-	-	1
New Bedford, Mass.	18	10	3	2	3	-	-	Savannah, Ga.	148	93	35	14	4	2	11
New Haven, Conn.	39	27	6	4	2	-	2	St. Petersburg, Fla.	183	162	65	53	23	9	5
Providence, R.I.	34	25	7	2	-	-	-	Tampa, Fla.	21	19	1	-	-	-	1
Somerville, Mass.	3	3	-	-	-	-	1	Washington, D.C.	690	433	155	64	15	23	56
Springfield, Mass.	42	29	9	4	-	-	3	Birmingham, Ala.	71	44	17	6	2	2	6
Waterbury, Conn.	22	18	4	-	-	-	1	Chattanooga, Tenn.	67	49	12	6	-	-	5
Worcester, Mass.	57	41	8	5	-	3	11	Knoxville, Tenn.	53	28	17	5	2	1	3
MID. ATLANTIC	2,510	1,563	488	330	88	40	116	Lexington, Ky.	39	23	12	3	-	-	1
Albany, N.Y.	37	27	6	1	2	1	-	Memphis, Tenn.	196	133	34	16	2	11	23
Allentown, Pa.	18	13	4	1	-	-	-	Mobile, Ala.	108	69	24	8	4	1	8
Buffalo, N.Y.	142	74	23	20	24	1	10	Montgomery, Ala.	30	21	6	-	-	-	1
Camden, N.J.	20	9	2	6	1	2	2	Nashville, Tenn.	128	86	31	20	5	6	7
Elizabeth, N.J.	9	6	1	2	-	-	-	W.S. CENTRAL	1,234	728	265	162	38	40	76
Erie, Pa.	46	35	8	2	1	-	2	Austin, Tex.	49	29	12	7	1	-	8
Jersey City, N.J.	38	28	8	1	1	-	-	Baton Rouge, La.	32	20	9	2	1	-	2
New York City, N.Y.	1,224	713	265	199	34	13	39	Corpus Christi, Tex.	38	25	9	3	1	-	-
Newark, N.J.	68	29	18	12	2	7	3	Dallas, Tex.	250	143	49	39	5	14	4
Paterson, N.J.	23	10	6	3	3	1	1	El Paso, Tex.	52	31	8	8	4	1	-
Philadelphia, Pa.	456	325	93	53	14	10	41	Ft. Worth, Tex.	86	56	19	8	1	2	5
Pittsburgh, Pa.	52	39	10	3	-	-	1	Houston, Tex.	305	157	73	51	13	10	28
Reading, Pa.	6	3	-	2	1	-	-	Little Rock, Ark.	66	37	23	5	1	-	6
Rochester, N.Y.	131	93	23	12	2	1	7	New Orleans, La.	86	49	21	11	4	1	-
Schenectady, N.Y.	20	18	2	-	-	-	-	San Antonio, Tex.	164	109	21	22	6	7	13
Scranton, Pa.	25	22	2	-	1	-	2	Shreveport, La.	16	10	4	-	-	-	2
Syracuse, N.Y.	89	69	11	4	2	3	4	Tulsa, Okla.	90	63	17	6	1	3	6
Trenton, N.J.	22	16	4	1	-	1	2	MOUNTAIN	755	467	155	81	29	13	38
Utica, N.Y.	13	12	4	1	-	-	-	Albuquerque, N.M.	85	54	18	9	3	1	4
Yonkers, N.Y.	31	22	2	7	-	-	2	Colorado Springs, Colo.	44	24	17	3	-	-	3
E.N. CENTRAL	1,343	1,211	357	202	114	59	102	Denver, Colo.	92	63	17	6	3	3	3
Akron, Ohio	61	45	7	7	-	-	-	Las Vegas, Nev.	117	68	24	21	3	1	6
Canton, Ohio	31	23	6	1	-	-	-	Ogden, Utah	21	15	6	-	-	-	3
Chicago, Ill.	452	191	90	97	63	11	9	Phoenix, Ariz.	167	89	35	28	11	4	10
Cincinnati, Ohio	82	59	15	4	1	3	9	Pueblo, Colo.	25	17	3	3	1	1	1
Cleveland, Ohio	127	84	22	8	7	6	3	Salt Lake City, Utah	96	65	16	10	5	-	5
Columbus, Ohio	134	86	34	8	2	2	10	Tucson, Ariz.	108	72	19	11	3	3	3
Dayton, Ohio	109	72	23	8	2	4	4	PACIFIC	1,716	1,091	295	212	72	41	103
Detroit, Mich.	201	115	40	30	9	7	9	Berkeley, Calif.	18	14	1	3	-	-	1
Evansville, Ind.	39	23	12	3	1	-	1	Fresno, Calif.	61	43	10	5	3	-	2
Fort Wayne, Ind.	89	53	9	4	3	-	5	Glendale, Calif.	19	15	2	1	1	-	-
Gary, Ind.	22	13	3	2	3	1	1	Honolulu, Hawaii	86	52	10	4	-	-	10
Grand Rapids, Mich.	154	96	8	4	1	5	8	Long Beach, Calif.	76	49	12	12	1	2	4
Indianapolis, Ind.	149	108	28	6	4	3	9	Los Angeles, Calif.	493	306	79	73	26	5	25
Madison, Wis.	18	13	1	2	1	1	-	Pasadena, Calif.	17	8	4	-	-	-	5
Minneapolis, Wis.	104	88	6	5	3	2	9	Portland, Oreg.	122	77	22	15	5	3	2
Peoria, Ill.	46	26	13	2	3	4	1	Sacramento, Calif.	123	74	21	18	8	2	12
Rockford, Ill.	40	30	7	1	1	1	6	San Diego, Calif.	151	93	26	11	8	13	22
South Bend, Ind.	40	30	7	-	2	1	5	San Francisco, Calif.	145	74	37	31	2	1	2
Toledo, Ohio	102	69	17	7	5	4	11	San Jose, Calif.	168	108	27	19	10	3	13
Youngstown, Ohio	61	45	9	3	2	2	1	Santa Cruz, Calif.	34	24	6	4	-	-	2
W.N. CENTRAL	596	427	77	49	24	19	29	Seattle, Wash.	106	64	20	10	5	7	4
Des Moines, Iowa	54	38	9	-	3	4	3	Spokane, Wash.	44	36	6	1	1	-	1
Duluth, Minn.	16	10	5	-	1	-	-	Tacoma, Wash.	73	54	12	5	2	-	3
Kansas City, Kans.	12	8	2	1	1	-	1	TOTAL	11,079 <sup>‡</sup>	6,946	2,130	1,293	439	263	606
Kansas City, Mo.	116	89	11	8	7	1	7								
Lincoln, Neb.	20	16	1	3	-	-	-								
Minneapolis, Minn.	127	86	20	11	3	7	8								
Omaha, Neb.	62	44	8	3	3	4	3								
St. Louis, Mo.	119	85	12	16	4	2	5								
St. Paul, Minn.	38	30	4	2	1	1	2								
Wichita, Kans.	32	21	5	5	1	-	-								

\*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

<sup>†</sup>Pneumonia and influenza.

<sup>‡</sup>Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

<sup>§</sup>Total includes unknown ages.

U: Unavailable.



### Notices to Readers

#### **Course in Hospital Epidemiology**

CDC, the Society for Hospital Epidemiology of America (SHEA), and the American Hospital Association will cosponsor a hospital epidemiology training course September 12-14, 1993, in Seattle. The course is aimed at infectious disease fellows, new hospital epidemiologists, and infection-control practitioners. The course will provide hands-on exercises for detection, investigation, and control of epidemiologic problems encountered in the hospital setting, as well as lectures and seminars on fundamental aspects of hospital epidemiology.

Additional information is available from Ian Dockrill, SHEA Meetings Department, 875 Kings Highway, Suite 200, Woodbury, NJ 08096-3172; telephone (609) 845-1720; fax (609) 853-0411.

#### **Epidemiology in Action Course**

CDC and Emory University will cosponsor a course designed for practicing state and local health department professionals. This course, "Epidemiology in Action," will be held at CDC November 8-19, 1993. It emphasizes the practical application of epidemiology to public health problems and comprises lectures, discussions, workshops, classroom exercises (including actual epidemiologic problems), and an on-site community survey. The topics covered will include descriptive epidemiology and biostatistics, analytic epidemiology, epidemic investigations, public health surveillance, surveys and sampling, computers and Epi Info 5, and discussions of selected prevalent diseases. There is a tuition charge.

Applications must be received by September 15. Additional information and applications are available from Department PSB, Emory University, School of Public Health, 1599 Clifton Road, NE, Atlanta, GA 30329; telephone (404) 727-3485 or (404) 727-0199; fax (404) 727-4590.

#### **Conference on Prevention of Transmission of Bloodborne Pathogens in Surgery and Obstetrics**

CDC and the American College of Surgeons will cosponsor a conference, "Prevention of Transmission of Bloodborne Pathogens in Surgery and Obstetrics," February 13-15, 1994, in Atlanta. The conference will provide information about the risk for transmission of bloodborne pathogens, including human immunodeficiency virus and hepatitis B and C viruses, during surgical and obstetric procedures and describe methods to reduce that risk.

Abstracts will be accepted on the following topics: risk for transmission of bloodborne pathogens to health-care workers and patients in surgical and obstetric suites; new devices, techniques, and personal-protection equipment that decrease occupational exposure in surgical and obstetric suites; additional prevention measures (e.g., vaccination and postexposure management); and methods to conduct and evaluate

*Notices to Readers — Continued*

studies of risk and prevention measures. The deadline for receipt of abstracts is October 31, 1993.

Additional information is available from John P. Lynch, Organization Department, American College of Surgeons, 55 East Erie Street, Chicago, IL 60611-2797; telephone (312) 664-4050.

**Final 1992 Reports of Notifiable Diseases**

The notifiable diseases table on pages 537-542 summarizes final data from 1992, which will be published in more detail in the *MMWR Summary of Notifiable Diseases, United States, 1992* (1).

Population estimates for the states are from the July 1, 1992, estimates by the U.S. Bureau of the Census, Population Division, Population Estimates Branch, Press Release CB92-276. Population estimates for territories are from the 1990 Census, U.S. Bureau of the Census, Press Releases CB91-142, 242, 243, 263, and 276.

*Reference*

1. CDC. Summary of notifiable diseases, United States, 1992. *MMWR* 1993;41(no. 54) (in press).

**Addendum: Vol. 42, No. 15**

In the article, "Malaria Among U.S. Embassy Personnel—Kampala, Uganda, 1992," the following names should appear in the credits on page 295: N Calhoun, L Marum, MD, US Embassy Health Unit, Kampala, Uganda. T Adera, PhD, Uniformed Svcs Univ of Health Sciences, Bethesda, Maryland. MS Wolfe, MD, K McGuire-Rugh, MPH, Office of Medical Svcs, Dept of State.

**Erratum: Vol. 42, No. RR-7**

In the *MMWR Recommendations and Reports*, "Initial Therapy for Tuberculosis in the Era of Multidrug Resistance, Recommendations of the Advisory Council for the Elimination of Tuberculosis," dated May 21, 1993, on page 3, Option 1 in Table 1 should read as follows: Administer daily INH, RIF, and PZA for 8 weeks followed by 16 weeks of INH and RIF daily or 2-3 times/week\*. *In areas where the INH resistance rate is not documented to be <4%, EMB or SM should be added to the initial regimen until susceptibility to INH and RIF is demonstrated.* Continue treatment for at least 6 months and 3 months beyond culture conversion. Consult a TB medical expert if the patient is symptomatic or smear or culture positive after 3 months.

In addition, add the following citation to the reference section:

17. CDC. National action plan to combat multidrug-resistant tuberculosis. *MMWR* 1992;41(no. RR-11):1-30.

**Erratum: Vol. 42, No. 14**

In the article "Impact of Adult Safety-Belt Use on Restraint Use Among Children <11 Years of Age—Selected States, 1988 and 1989," on page 277, the first sentence of the second paragraph should read "Educational attainment of adult respondents was positively associated with child restraint use in this report."

# NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1992

Area	Total resident population (in thousands)	AIDS	Amebiasis	Anthrax	Aseptic meningitis	Botulism			Brucellosis
						Foodborne	Infant	Other	
United States	255,082	45,472*	2,942	1	12,223	21	66	4 <sup>†</sup>	105
New England	13,200	1,743	121	—	455	—	—	—	1
Maine	1,235	44	9	—	42	—	—	—	—
N.H.	1,111	46	2	—	44	—	—	—	—
Vt.	570	26	4	—	26	—	—	—	—
Mass.	5,998	875	104	—	171	—	—	—	1
R.I.	1,005	106	2	—	172	—	—	—	—
Conn.	3,281	646	NN	—	NN	—	—	—	—
Mid. Atlantic	37,918	11,764	648	—	971	4	4	1	3
N.Y.(excl.NYC) <sup>‡</sup>	18,119	1,545	115	—	490	—	—	—	1
N.Y.C.	NA	6,853	464	—	179	—	1	1	—
N.J.	7,789	2,040	23	—	NN	3	2	—	—
Pa.	12,009	1,326	48	—	302	1	1	—	2
E.N. Central	42,753	3,994	245	—	2,092	—	2	—	5
Ohio	11,016	733	35	—	518	—	2	—	—
Ind.	5,662	402	14	—	233	—	—	—	—
Ill.	11,631	1,912	56	—	667	—	—	—	4
Mich.	9,437	718	49	—	597	—	—	—	—
Wis.	5,007	229	91	—	77	—	—	—	1
W.N. Central	17,966	1,302	112	—	854	—	2	—	2
Minn.	4,480	218	75	—	112	—	—	—	—
Iowa	2,812	111	—	—	105	—	—	—	1
Mo.	5,193	708	23	—	272	—	—	—	—
N.Dak.	636	5	2	—	2	—	—	—	—
S.Dak.	711	8	3	—	10	—	1	—	1
Nebr.	1,606	61	8	—	39	—	—	—	—
Kans.	2,523	191	1	—	114	—	1	—	—
S. Atlantic	45,061	16,289	203	—	1,923	1	3	—	24
Del.	689	140	5	—	53	—	2	—	1
Md.	4,906	1,204	10	—	229	—	1	—	—
D.C.	589	708	—	—	28	—	—	—	—
Va.	6,377	784	36	—	310	—	—	—	—
W.Va.	1,812	54	2	—	39	—	—	—	—
N.C.	6,843	564	9	—	232	1	—	—	19
S.C.	3,603	391	NN	—	26	—	—	—	1
Ga.	6,751	1,324	84	—	229	—	—	—	1
Fla.	13,488	5,101	57	—	777	—	—	—	2
E.S. Central	15,529	1,310	17	—	571	1	2	—	1
Ky.	3,755	213	2	—	213	—	—	—	—
Tenn.	5,024	408	NN	—	143	1	1	—	—
Ala.	4,136	437	7	—	137	—	—	—	1
Miss.	2,614	260	8	—	78	—	1	—	—
W.S. Central	27,554	4,182	119	—	1,363	—	3	—	29
Ark.	2,399	280	3	—	38	—	—	—	1
La.	4,287	710	3	—	83	—	1	—	1
Okla.	3,212	272	5	—	—	—	1	—	—
Tex.	17,656	2,920	108	—	1,242	—	—	—	27
Mountain	14,381	1,349	201	1	423	3	6	—	3
Mont.	824	22	—	—	12	—	—	—	1
Idaho	1,067	35	8	—	25	—	—	—	—
Wyo.	466	5	4	—	6	—	—	—	1
Colo.	3,470	410	57	—	126	3	—	—	1
N.Mex.	1,591	107	25	—	60	—	2	—	—
Ariz.	3,832	386	95	—	118	—	1	—	—
Utah	1,813	135	4	—	23	—	3	—	—
Nev.	1,327	249	8	1	53	—	—	—	—
Pacific	40,726	9,532	1,276	—	3,771	12	44	3	37
Wash.	5,136	551	38	—	NN	—	2	—	1
Oreg.	2,977	269	89	—	NN	1	1	—	—
Calif.	30,867	8,539	1,120	—	3,646	2	37	3	35
Alaska	567	15	8	—	18	9	1	—	1
Hawaii	1,160	138	21	—	107	—	3	—	—
Guam	133	—	1	—	10	—	—	—	—
P.R.	3,522	1,623	3	—	189	—	—	—	—
V.I.	102	11	—	—	—	—	—	—	—
C.N.M.I.	43	—	1	—	—	—	—	—	—
American Samoa	47	—	—	—	—	—	—	—	—

\*Total reported through December 31, 1992.

†Includes wound and unspecified botulism.

‡NY population estimate includes NYC.

NN: Not notifiable

NA: Not available

# NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1992 (continued)

Area	Chancroid	Cholera	Diphtheria	Encephalitis		Gonorrhea	Granuloma inguinale	Haemophilus influenzae	Hansen disease (leprosy)
				Primary infections	Post-infectious				
United States	1,898*	103 <sup>†</sup>	4	774	129	501,409*	8*	1,412	172
New England	15	2	—	28	1	10,192	1	48	6
Maine	—	—	—	3	—	96	—	6	—
N.H.	2	—	—	3	1	145	—	9	—
Vt.	—	—	—	6	—	26	—	1	—
Mass.	13	—	—	13	—	3,587	1	20	6
R.I.	—	—	—	3	—	669	—	—	—
Conn.	—	2	—	—	—	5,669	—	12	—
Mid. Atlantic	825	4	1	56	12	60,705	—	173	18
N.Y.(excl.NYC)	3	—	—	31	—	11,935	—	58	1
N.Y.C.	818	3	—	6	3	21,813	—	33	15
N.J.	4	1	—	—	—	6,822	—	22	2
Pa.	—	—	1	19	9	20,135	—	60	—
E.N. Central	145	—	—	182	29	91,343	—	226	—
Ohio	7	—	—	58	2	27,765	—	116	—
Ind.	2	—	—	13	12	9,273	—	19	—
Ill.	135	—	—	82	8	29,181	—	53	—
Mich.	—	—	—	25	9	21,467	—	20	—
Wis.	1	—	—	6	—	3,657	—	12	—
W.N. Central	12	—	—	54	6	25,888	—	168	2
Minn.	—	—	—	22	—	3,152	—	48	1
Iowa	1	—	—	—	3	1,654	—	—	—
Mo.	8	—	—	16	—	14,883	—	81	—
N.Dak.	—	—	—	3	—	71	—	3	—
S.Dak.	—	—	—	3	1	168	—	4	1
Nebr.	—	—	—	5	2	1,556	—	10	—
Kans.	3	—	—	5	—	4,404	—	14	—
S. Atlantic	185	5	1	178	66	142,061	—	328	6
Del.	2	—	—	7	—	1,787	—	2	—
Md.	4	3	—	19	—	16,988	—	81	—
D.C.	1	—	—	1	—	8,031	—	—	—
Va.	—	—	—	43	13	16,805	—	36	2
W.Va.	—	—	—	77	—	800	—	12	—
N.C.	38	—	—	26	—	26,367	—	64	—
S.C.	3	—	—	—	—	11,128	—	37	—
Ga.	21	—	—	2	—	32,422	—	66	3
Fla.	96	2	1	1	53	27,933	—	30	1
E.S. Central	43	—	1	34	1	50,122	—	78	2
Ky.	4	—	1	21	—	4,671	—	19	2
Tenn.	39	—	—	7	—	15,732	—	34	—
Ala.	—	—	—	5	—	17,601	—	20	—
Miss.	—	—	—	1	1	12,118	—	5	—
W.S. Central	660	7	—	106	5	64,232	3	79	52
Ark.	—	—	—	3	—	7,461	—	5	—
La.	341	2	—	11	1	14,153	3	1	—
Okla.	—	—	—	5	2	6,461	—	31	—
Tex.	319	5	—	87	2	36,157	—	42	52
Mountain	3	17	1	33	5	12,622	2	129	1
Mont.	—	—	—	1	1	110	—	4	—
Idaho	—	—	—	—	—	121	—	3	—
Wyo.	1	—	—	2	—	77	—	8	—
Colo.	—	—	—	11	1	4,679	—	29	—
N.Mex.	—	—	1	4	1	921	—	9	1
Ariz.	1	2	—	7	1	4,187	2	47	—
Utah	1	—	—	5	1	385	—	9	—
Nev.	—	15	—	3	—	2,142	—	20	—
Pacific	18	68	—	185	4	44,244	—	199	85
Wash.	2	2	—	2	—	4,169	—	22	14
Oreg.	—	—	—	—	—	1,765	—	—	2
Calif.	16	64	—	96	3	38,971	—	165	50
Alaska	—	—	—	7	—	653	—	2	—
Hawaii	—	2	—	—	1	686	—	10	19
Guam	—	—	—	—	—	74	—	—	—
P.R.	14	—	—	—	2	422	—	8	—
V.I.	6	—	—	—	—	114	—	—	1
C.N.M.I.	—	—	—	—	—	—	—	—	3
American Samoa	—	—	—	—	—	—	—	—	—

\*Cases updated through February 28, 1993.

<sup>†</sup>Includes 100 imported cases. Seventy-five (75) cases were included in an outbreak reported to the Los Angeles County Health Department and the California Department of Health Services—57 in California, 15 in Nevada, 2 in Arizona, and 1 in Hawaii.

**NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1992 (continued)**

Area	Hepatitis A	Hepatitis B	Hepatitis non-A, non-B	Hepatitis unsp.	Legionellosis	Leptospirosis	Lyme disease	Lympho-granuloma venereum	Malaria
<b>United States</b>	<b>23,112</b>	<b>16,126</b>	<b>6,010</b>	<b>884</b>	<b>1,339</b>	<b>54</b>	<b>9,895</b>	<b>382*</b>	<b>1,087</b>
<b>New England</b>	<b>818</b>	<b>858</b>	<b>107</b>	<b>28</b>	<b>50</b>	<b>—</b>	<b>2,327</b>	<b>12</b>	<b>48</b>
Maine	29	27	6	—	2	—	16	—	1
N.H.	32	50	24	5	7	—	44	—	3
Vt.	14	17	17	—	2	—	9	—	1
Mass.	292	383	53	23	23	—	223	12	24
R.I.	170	20	7	—	16	—	275	—	5
Conn.	81	159	—	—	NN	—	1,760	—	14
<b>Mid. Atlantic</b>	<b>1,804</b>	<b>1,969</b>	<b>332</b>	<b>23</b>	<b>322</b>	<b>2</b>	<b>5,309</b>	<b>133</b>	<b>305</b>
N.Y.(excl.NYC)	355	513	195	12	106	1	3,345	5	48
N.Y.C.	883	440	6	—	10	—	103	128	169
N.J.	311	511	97	—	32	—	688	—	54
Pa.	255	495	34	11	174	1	1,173	—	34
<b>E.N. Central</b>	<b>3,113</b>	<b>1,922</b>	<b>831</b>	<b>30</b>	<b>353</b>	<b>4</b>	<b>655</b>	<b>4</b>	<b>83</b>
Ohio	449	235	97	4	158	—	32	—	16
Ind.	799	227	27	2	37	2	22	1	14
Ill.	779	395	122	10	37	—	41	3	27
Mich.	151	584	486	14	73	1	35	—	15
Wis.	935	481	99	—	48	1	525	—	11
<b>W.N. Central</b>	<b>3,203</b>	<b>783</b>	<b>169</b>	<b>19</b>	<b>78</b>	<b>1</b>	<b>422</b>	<b>3</b>	<b>48</b>
Minn.	885	95	26	3	6	1	197	—	21
Iowa	53	33	7	5	18	—	33	—	5
Mo.	1,500	535	27	9	28	—	150	3	12
N.Dak.	143	4	4	1	2	—	1	—	1
S.Dak.	215	5	—	—	1	—	1	—	2
Neb.	266	45	89	1	18	—	22	—	1
Kans.	141	88	16	—	5	—	18	—	6
<b>S. Atlantic</b>	<b>1,444</b>	<b>2,683</b>	<b>956</b>	<b>131</b>	<b>227</b>	<b>4</b>	<b>883</b>	<b>104</b>	<b>242</b>
Del.	56	209	204	2	24	—	219	1	6
Md.	256	402	36	11	39	—	183	2	83
D.C.	17	65	278	—	22	3	3	13	15
Va.	164	193	48	53	29	2	123	41	47
W.Va.	10	54	7	28	—	—	14	—	2
N.C.	110	431	91	—	48	2	67	8	34
S.C.	22	54	1	1	17	—	2	1	1
Ga.	228	321	138	—	20	—	48	7	17
Fla.	581	934	193	38	28	—	24	31	57
<b>E.S. Central</b>	<b>350</b>	<b>1,644</b>	<b>1,290</b>	<b>136</b>	<b>57</b>	<b>2</b>	<b>69</b>	<b>11</b>	<b>19</b>
Ky.	139	110	6	1	27	—	28	3	2
Tenn.	115	1,053	1,285	133	24	1	31	8	9
Ala.	53	138	18	1	6	1	10	—	6
Miss.	43	343	1	1	—	—	—	—	2
<b>W.S. Central</b>	<b>2,436</b>	<b>2,091</b>	<b>460</b>	<b>202</b>	<b>43</b>	<b>9</b>	<b>167</b>	<b>17</b>	<b>58</b>
Ark.	155	108	5	3	1	1	20	—	4
La.	234	261	127	3	7	3	7	17	2
Okla.	219	189	47	5	11	—	27	—	5
Tex.	1,828	1,533	281	191	24	5	113	—	45
<b>Mountain</b>	<b>3,494</b>	<b>810</b>	<b>332</b>	<b>78</b>	<b>118</b>	<b>—</b>	<b>16</b>	<b>1</b>	<b>34</b>
Mont.	87	40	28	1	9	—	—	—	—
Idaho	136	84	—	3	5	—	2	—	1
Wyo.	14	22	66	—	3	—	5	—	1
Colo.	883	121	100	36	24	—	—	—	10
N.Mex.	343	209	53	8	3	—	2	—	4
Ariz.	1,225	198	34	18	40	—	—	1	10
Utah	695	29	36	11	11	—	6	—	5
Nev.	111	107	15	1	23	—	1	—	3
<b>Pacific</b>	<b>6,650</b>	<b>3,578</b>	<b>1,493</b>	<b>237</b>	<b>91</b>	<b>32</b>	<b>247</b>	<b>17</b>	<b>252</b>
Wash.	863	398	185	10	14	—	14	2	21
Oreg.	550	305	85	9	1	—	NN	—	—
Calif.	4,936	2,636	1,046	207	71	2	231	15	219
Alaska	130	21	7	2	—	—	—	—	1
Hawaii	171	18	170	9	5	30	2	—	11
Guam	8	8	1	9	—	—	—	—	3
P.R.	53	391	307	8	1	10	—	—	—
V.I.	8	7	—	—	—	—	—	—	—
C.N.M.I.	5	—	—	—	—	—	—	—	—
American Samoa	5	5	—	—	—	—	—	—	—

\*Cases updated through February 28, 1993.

NN: Not notifiable

# NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1992 (continued)

Area	Measles		Meningo- coccal infections	Mumps	Murine typhus fever	Pertussis	Plague	Polio- myelitis, paralytic
	Indigenous	Imported						
United States	2,084	153*	2,134	2,572	28	4,083	13	—†
New England	53	13	134	23	—	736	—	—
Maine	—	4	12	—	—	13	—	—
N.H.	13	—	10	8	—	192	—	—
Vt.	—	—	11	2	—	32	—	—
Mass.	17	5	50	3	—	443	—	—
R.I.	21	—	7	2	—	6	—	—
Conn.	2	4	44	8	—	50	—	—
Mid. Atlantic	197	31	294	205	3	405	—	—
N.Y.(excl.NYC)	102	10	118	86	3	173	—	—
N.Y.C.	55	13	28	12	—	24	—	—
N.J.	38	4	51	18	—	60	—	—
Pa.	2	4	97	87	—	148	—	—
E.N. Central	46	15	351	363	1	743	—	—
Ohio	—	6	86	117	—	119	—	—
Ind.	20	—	38	12	—	64	—	—
Ill.	14	4	99	128	1	54	—	—
Mich.	11	3	87	85	—	16	—	—
Wis.	1	3	41	21	—	490	—	—
W.N. Central	8	6	104	92	—	352	—	—
Minn.	7	5	21	26	—	141	—	—
Iowa	—	1	18	13	—	11	—	—
Mo.	—	—	32	38	—	120	—	—
N.Dak.	—	—	1	4	—	15	—	—
S.Dak.	—	—	1	—	—	17	—	—
Nebr.	—	—	14	7	—	14	—	—
Kans.	1	—	17	3	—	34	—	—
S. Atlantic	118	15	391	840	3	221	—	—
Del.	1	—	2	8	—	8	—	—
Md.	9	7	34	53	2	47	—	—
D.C.	—	1	3	7	—	1	—	—
Va.	11	5	61	58	—	18	—	—
W.Va.	—	—	18	31	—	9	—	—
N.C.	23	1	87	219	—	43	—	—
S.C.	29	—	27	52	—	10	—	—
Ga.	2	1	55	84	1	28	—	—
Fla.	42	—	104	288	—	57	—	—
E.S. Central	450	18	133	66	—	47	—	—
Ky.	449	2	46	4	—	14	—	—
Tenn.	—	—	34	15	—	10	—	—
Ala.	—	—	40	14	—	20	—	—
Miss.	1	16	13	33	—	3	—	—
W.S. Central	1,007	15	193	460	18	248	—	—
Ark.	—	—	23	16	—	17	—	—
La.	1	2	38	35	—	18	—	—
Okla.	12	—	21	21	—	52	—	—
Tex.	1,004	13	111	388	18	161	—	—
Mountain	28	9	105	163	1	448	12	—
Mont.	—	—	15	2	—	9	—	—
Idaho	—	—	10	4	—	46	—	—
Wyo.	1	—	3	1	—	—	1	—
Colo.	23	8	30	34	—	111	—	—
N.Mex.	1	1	10	NN	—	163	4	—
Ariz.	3	—	21	84	—	132	4	—
Utah	—	—	5	24	—	45	1	—
Nev.	—	—	11	14	—	2	1	—
Pacific	87	31	429	360	2	883	1	—
Wash.	—	11	86	18	—	241	—	—
Oreg.	2	1	—	NN	—	47	—	—
Calif.	52	9	326	311	2	521	1	—
Alaska	8	1	10	3	—	18	—	—
Hawaii	25	9	7	28	—	56	—	—
Guam	1	3	4	33	—	—	—	—
P.R.	1,058	6	7	3	—	14	—	—
V.I.	—	—	—	23	—	—	—	—
C.N.M.I.	—	7	—	2	—	2	—	—
American Samoa	—	—	—	—	—	—	—	—

\*For measles only, imported includes both out-of-state and international importations.

†Ten (10) suspected cases of paralytic poliomyelitis were reported in 1992. To date, none have been confirmed.

NN: Not notifiable



# NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1992 (continued)

Area	Polio- crosis	Rabies		Rheumatic fever, acute	RMSF*	Rubella		Salmonel- losis	Shigel- losis
		Animal	Human			Rubella	Cong. syndrome		
United States	92	8,589	1	75	502	160	11	40,912	23,931
New England	6	931	-	4	7	6	-	3,283	537
Maine	2	1	-	-	-	1	-	185	19
N.H.	-	10	-	NN	-	-	-	339	20
Vt.	-	24	-	-	-	-	-	160	8
Mass.	4	57	-	NN	3	-	-	1,688	274
R.I.	-	1	-	-	2	4	-	187	70
Conn.	-	838	-	4	2	1	-	726	146
Mid. Atlantic	25	2,848	-	1	49	14	5	7,066	2,627
N.Y.(excl.NYC)	14	1,720	-	NN	16	8	3	2,010	455
N.Y.C.	1	41	-	NN	7	-	-	1,824	750
N.J.	1	726	-	1	13	3	-	1,083	264
Pa.	9	361	-	NN	13	3	2	2,148	558
E.N. Central	9	162	-	10	25	11	-	5,090	3,019
Ohio	2	14	-	4	14	-	-	1,139	355
Ind.	1	19	-	-	3	-	-	486	218
Ill.	3	40	-	2	2	9	-	1,711	1,363
Mich.	2	15	-	-	3	2	-	872	577
Wis.	1	74	-	4	3	-	-	882	506
W.N. Central	5	1,042	-	7	36	8	2	2,019	1,795
Minn.	-	173	-	1	-	-	1	547	102
Iowa	2	175	-	5	3	3	-	339	46
Mo.	1	37	-	-	24	1	-	426	742
N.Dak.	-	144	-	NN	-	-	-	71	11
S.Dak.	1	126	-	1	1	-	-	125	133
Nebr.	-	13	-	NN	3	-	-	207	485
Kans.	1	374	-	-	5	4	1	304	266
S. Atlantic	6	1,905	-	2	185	20	-	8,539	3,482
Del.	-	213	-	NN	15	-	-	239	21
Md.	2	553	-	NN	16	5	-	1,024	449
D.C.	-	18	-	NN	1	-	-	133	130
Va.	1	362	-	NN	26	-	-	957	253
W.Va.	-	54	-	2	5	1	-	138	13
N.C.	2	49	-	NN	70	-	-	955	456
S.C.	-	165	-	NN	8	7	-	626	131
Ga.	1	367	-	NN	42	-	-	1,517	565
Fla.	-	124	-	NN	2	7	-	2,950	1,464
E.S. Central	3	207	-	-	62	1	-	2,602	877
Ky.	-	62	-	NN	8	-	-	319	168
Tenn.	2	53	-	-	51	1	-	509	417
Ala.	1	91	-	NN	3	-	-	519	170
Miss.	-	1	-	-	-	-	-	655	122
W.S. Central	1	745	-	-	120	10	1	3,297	4,077
Ark.	-	47	-	-	24	-	-	346	63
La.	-	8	-	NN	2	-	-	639	192
Okla.	-	219	-	NN	93	1	-	379	254
Tex.	1	471	-	NN	1	9	1	1,933	3,568
Mountain	9	247	-	33	12	10	-	1,888	2,050
Mont.	1	24	-	NN	3	-	-	109	214
Idaho	-	7	-	NN	1	1	-	122	59
Wyo.	-	82	-	-	4	-	-	48	72
Colo.	2	25	-	7	-	2	-	523	368
N.Mex.	1	9	-	3	1	-	-	243	272
Ariz.	3	74	-	NN	-	2	-	551	816
Utah	1	6	-	23	1	3	-	159	196
Nev.	1	20	-	NN	2	2	-	133	63
Pacific	28	502	1	18	6	80	3	7,729	6,077
Wash.	12	7	-	-	-	8	-	609	439
Oreg.	5	2	-	NN	3	2	-	486	292
Calif.	11	468	1	16	3	47	3	6,227	5,196
Alaska	-	25	-	2	-	-	-	80	24
Hawaii	-	-	-	NN	-	23	-	327	124
Guam	-	-	-	-	-	4	-	64	165
P.R.	-	55	-	-	-	1	-	662	82
V.I.	-	-	-	2	-	-	-	8	4
C.N.M.I.	-	-	-	2	-	2	-	40	69
American Samoa	-	-	-	-	-	-	-	20	9

\*Rocky Mountain spotted fever.

NN: Not notifiable

# NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1992 (continued)

Area	Syphilis			Tetanus	Toxic-shock syndrome	Trichinosis	Tuberculosis	Tularemia	Typhoid fever	Varicella (chicken-pox)
	Primary & secondary	Cong. (<1 yr.)	All stages							
United States	33,973*	3,850*	112,581*	45	244	41	28,673	159	414	158,364
New England	867	32	2,148	3	14	4	687	1	31	11,852
Maine	8	—	12	—	2	—	24	—	—	2,011
N.H.	48	—	63	—	6	—	18	—	1	NA
Vt.	1	—	2	1	1	—	7	—	1	NN
Mass.	323	4	1,046	1	3	2	428	1	20	7,739
R.I.	30	2	182	—	2	—	54	—	—	1,902
Conn.	257	26	843	1	—	2	156	—	9	NN
Mid. Atlantic	4,269	1,336	23,567	5	25	2	6,316	1	115	6,579
N.Y.(excl.NYC)	347	60	1,967	1	10	2	763	—	20	NN
N.Y.C.	2,243	898	13,459	1	—	—	3,811	—	50	6,579
N.J.	595	104	2,736	2	—	—	984	1	25	NN
Pa.	1,084	274	5,405	1	15	—	758	—	20	NN
E.N. Central	5,092	641	12,927	5	55	—	2,476	3	41	75,383
Ohio	888	59	2,153	—	16	—	358	—	10	6,989
Ind.	294	3	766	—	5	—	247	—	1	NN
Ill.	2,380	396	6,297	1	12	—	1,270	2	25	33,801
Mich.	951	73	2,762	4	22	—	495	1	4	34,793
Wis.	579	10	949	—	—	—	106	—	1	NA
W.N. Central	1,604	42	2,691	2	41	1	586	52	7	20,004
Minn.	90	6	275	—	8	1	165	—	2	NN
Iowa	61	—	155	1	7	—	49	—	1	4,768
Mo.	1,168	28	1,941	1	9	—	245	34	3	10,009
N.Dak.	—	—	2	—	4	—	11	—	—	544
S.Dak.	1	—	1	—	—	—	32	11	—	471
Nebr.	22	4	64	—	5	—	28	4	1	33
Kans.	262	4	453	—	8	—	56	3	—	4,179
S. Atlantic	9,189	967	29,371	5	28	1	4,783	6	38	9,811
Del.	209	4	437	—	3	—	55	—	1	11
Md.	592	43	2,207	—	4	—	442	2	8	NN
D.C.	431	217	2,124	—	—	—	146	—	—	19
Va.	728	59	2,014	—	5	—	457	2	5	3,911
W.Va.	15	2	274	—	2	—	92	—	1	5,009
N.C.	2,478	72	5,230	1	3	—	604	1	—	NN
S.C.	1,270	56	2,816	—	1	—	387	—	2	861
Ga.	1,811	178	5,950	1	5	—	893	1	3	NN
Fla.	1,627	336	8,319	3	5	1	1,707	—	17	NN
E.S. Central	3,867	97	9,711	1	4	1	1,628	7	5	5,027
Ky.	182	8	394	—	—	—	402	2	1	2,147
Tenn.	1,212	51	3,263	—	4	1	527	5	—	2,880
Ala.	1,011	12	2,607	1	—	—	418	—	1	NN
Miss.	1,462	26	3,447	—	—	—	281	—	3	NN
W.S. Central	7,304	396	20,431	10	8	—	3,356	54	25	20,555
Ark.	886	34	2,169	3	5	—	257	39	1	NN
La.	2,729	1	6,590	1	—	—	373	2	1	NN
Okla.	346	23	812	1	3	—	216	13	—	NN
Tex.	3,343	336	10,860	5	1	—	2,510	—	23	20,555
Mountain	324	28	1,148	1	27	—	678	28	6	8,344
Mont.	7	—	14	—	1	—	18	12	—	NA
Idaho	2	—	27	—	2	—	26	—	1	NN
Wyo.	2	1	6	—	2	—	8	1	—	NN
Colo.	62	1	207	—	10	—	104	5	2	NN
N.Mex.	40	—	138	—	1	—	88	5	—	NN
Ariz.	158	18	540	1	5	—	259	—	2	7,802
Utah	9	—	53	—	6	—	78	2	—	742
Nev.	44	6	163	—	—	—	99	3	1	NN
Pacific	1,687	413	10,387	13	41	32	6,163	7	146	1,009
Wash.	85	11	415	3	7	—	306	2	11	NN
Oreg.	47	—	217	3	2	—	145	—	2	NN
Calif.	1,540	402	9,684	7	32	4	5,362	2	126	NN
Alaska	5	—	30	—	—	28	57	3	—	NN
Hawaii	10	—	41	—	—	—	273	—	7	1,009
Guam	—	—	2	—	—	—	—	—	2	586
P.R.	437	26	1,946	1	—	—	312	—	2	8,513
V.I.	21	2	51	—	—	—	2	—	—	192
C.N.M.I.	—	—	—	1	—	—	55	—	1	229
American Samoa	—	—	—	—	—	—	1	—	1	75

\*Cases updated through February 28, 1993.

 NN: Not notifiable  
 NA: Not available



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